BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Modified Estimate for Construction of RCC Drains and Culverts at Hill side meadows, Sai Nagar in ward No. 03, Yelahanka Satellite Town sub Division

Sl No	Description of work	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount
				m	m	m		in Rs	in Rs
1	KSRRB300-1. Earthwork excavation by manual means for Drains and similar works in ordinar soil excavated surface levelled and sides neatly dressed, the dispossed earth to be levelled neatly after breaking of clods completed as per specifications. KPWD S.R 2018-19.								
	RCC Drain	Cum							
	Hillside meadows								
	Main Road								
	LHS From Main Road		1	103.30	1.10	1.00	113.63		
	RHS From Dead end		1	121.90	1.10	1.00	134.09		
	1st Cross Right side								
	LHS from main road		1	31.00	1.10	1.00	34.10		
	RHS From Dead end		1	30.00	1.10	1.00	33.00		
	1st Cross Left side								
	LHS from main road		1	170.40	1.10	1.00	187.44		
	RHS From Dead end		1	132.50	1.10	1.00	145.75		
	2nd Cross								
	LHS from main road		1	100.20	1.10	1.00	110.22		
	RHS From Dead end		1	86.30	1.10	1.00	94.93		
	3rd Cross								
	LHS from main road		1	53.20	1.10	1.00	58.52		
	RHS From Dead end		1	35.10	1.10	1.00	38.61		
	Sai Nagar Phase-1								
	2nd cross								
	LHS from main road		1	124.50	1.10	1.00	136.95		
	RHS From Dead end		1	138.20	1.10	1.00	152.02		
	3rd cross								
	LHS from main road		1	124.60	1.10	1.00	137.06		
	RHS From Dead end		1	129.90	1.10	1.00	142.89		
	5th Cross								
	RHS From main road		1	244.70	1.10	1.00	269.17		
	LHS From end		1	225.10	1.10	1.00	247.61		
	Sai Nagar Phase-3								
	3rd Cross road								
	RHS from main road		1	133.00	0.90	1.00	119.70		
	Cross road		1	164.00	1.10	0.90	162.36		
	For Kerb Stone								
	Hillside meadows								
	Main Road								
	LHS From Main Road		1	91.90	0.20	0.20	3.68		
	RHS From Dead end		1	101.90	0.20	0.20	4.08		
	1st Cross Right side								
	LHS from main road		1	31.00	0.20	0.20	1.24		
	RHS From Dead end		1	30.00	0.20	0.20	1.20		
	1st Cross Left side								
	LHS from main road		1	170.40	0.20	0.20	6.82		

	Description of Work	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount
				m	m	m		in Rs	in Rs
	RHS From Dead end		1	132.50	0.20	0.20	5.30		
	2nd Cross								
	LHS from main road		1	140.00	0.20	0.20	5.60		
	RHS From Dead end		1	99.00	0.20	0.20	3.96		
	3rd Cross								
	LHS from main road		1	60.00	0.20	0.20	2.40		
	RHS From Dead end		1	35.60	0.20	0.20	1.42		
	Sai Nagar Phase-1								
	2nd cross								
	LHS from main road		1	124.50	0.20	0.20	4.98		
	RHS From Dead end		1	138.20	0.20	0.20	5.53		
	3rd cross								
	LHS from main road		1	128.00	0.20	0.20	5.12		
	RHS From Dead end		1	134.00	0.20	0.20	5.36		
	5th Cross								
	RHS From main road		1	244.00	0.20	0.20	9.76		
	LHS From end		1	225.10	0.20	0.20	9.00		
	Sai Nagar Phase-3								
	3rd Cross road								
	RHS from main road		1	106.00	0.20	0.20	4.24		
	Culvert		4	7.00	1.50	1.20	50.40		
							2448.13	211.79	**518490.30**
	Approved Rate Rs =	211.79							
2	KSRRB M2900-1. Plain cement concrete M10 mix with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing including cost of materials, labour,HOM completed as per specifications								
	RCC Drain	Cum							
	Hillside meadows								
	Main Road								
	LHS From Main Road		1	103.30	1.10	0.15	17.04		
	RHS From Dead end		1	121.90	1.10	0.15	20.11		
	1st Cross Right side								
	LHS from main road		1	31.00	1.10	0.15	5.12		
	RHS From Dead end		1	30.00	1.10	0.15	4.95		
	1st Cross Left side								
	LHS from main road		1	170.40	1.10	0.15	28.12		
	RHS From Dead end		1	132.50	1.10	0.15	21.86		
	2nd Cross								
	LHS from main road		1	100.20	1.00	0.15	15.03		
	RHS From Dead end		1	86.30	1.10	0.15	14.24		
	3rd Cross								
	LHS from main road		1	53.20	1.10	0.15	8.78		
	RHS From Dead end		1	35.10	1.10	0.15	5.79		
	Sai Nagar Phase-1								
	2nd cross								
	LHS from main road		1	124.50	1.10	0.15	20.54		
	RHS From Dead end		1	138.20	1.10	0.15	22.80		
	3rd cross								

	Description of work	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount
				m	m	m		in Rs	in Rs
	LHS from main road								
	RHS From Dead end		1	124.60	1.10	0.15	20.56		
	5th Cross		1	129.90	1.10	0.15	21.43		
	RHS From main road								
	LHS From end		1	244.70	1.10	0.15	40.38		
	Sai Nagar Phase-3		1	225.10	1.10	0.15	37.14		
	3rd Cross road								
	RHS from main road								
	Cross road		1	133.00	0.90	0.15	17.96		
	For Kerb Stone		1	164.00	1.10	0.15	27.06		
	Hillside meadows								
	Main Road								
	LHS From Main Road								
	RHS From Dead end		1	91.90	0.20	0.10	1.84		
	1st Cross Right side		1	101.90	0.20	0.10	2.04		
	LHS from main road								
	RHS From Dead end		1	31.00	0.20	0.10	0.62		
	1st Cross Left side		1	30.00	0.20	0.10	0.60		
	LHS from main road								
	RHS From Dead end		1	170.40	0.20	0.10	3.41		
	2nd Cross		1	132.50	0.20	0.10	2.65		
	LHS from main road								
	RHS From Dead end		1	140.00	0.20	0.10	2.80		
	3rd Cross		1	99.00	0.20	0.10	1.98		
	LHS from main road								
	RHS From Dead end		1	60.00	0.20	0.10	1.20		
	Sai Nagar Phase-1		1	35.60	0.20	0.10	0.71		
	2nd cross								
	LHS from main road								
	RHS From Dead end		1	124.50	0.20	0.10	2.49		
	3rd cross		1	138.20	0.20	0.10	2.76		
	LHS from main road								
	RHS From Dead end		1	128.00	0.20	0.10	2.56		
	5th Cross		1	134.00	0.20	0.10	2.68		
	RHS From main road								
	LHS From end		1	244.00	0.20	0.10	4.88		
	Sai Nagar Phase-3		1	225.10	0.20	0.10	4.50		
	3rd Cross road								
	RHS from main road								
	Culvert		1	106.00	0.20	0.10	2.12		
			4	7.00	1.50	0.15	6.30		
	Approved Rate Rs.=	4479.56					**395.05**	4479.56	**1769661.38**
3	KSRRB M2200-6 Providing TMT Bars Fe 500 steel reinforcement for RCC work including Straightening, cutting, bending, hooking, placing in position, lapping and/or welding whereever required, tying with binding wire and anchoring to the adjoining members whereever necessary completed as per design ans specification.								
		Ton							
	Steel for drain		1	689.06		0.06	41.34		
	Steel for Culvert		1	12.32		0.09	1.11		

	Description of work	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount
				m	m	m		in Rs	in Rs
	Approved Rate Rs.=	72326.98					42.45	72326.98	3070443.90
4	providing and laying plain/reinforced cement concrete foe drain walls and bottom thickness 15cm using M20 nominal mix concrete with OPC at 300kgs. With 20mm and down size granite metal coarse aggregates at 0.69cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centring, shuttering, cost of materials, HOM of machinery, curing etc., completed as per specification.								
	RCC Drain								
	Raft	Cum							
	Hillside meadows								
	Main Road								
	LHS From Main Road		1	103.30	0.90	0.15	13.95		
	RHS From Dead end		1	121.90	0.90	0.15	16.46		
	1st Cross Right side								
	LHS from main road		1	31.00	0.90	0.15	4.19		
	RHS From Dead end		1	30.00	0.90	0.15	4.05		
	1st Cross Left side								
	LHS from main road		1	170.40	0.90	0.15	23.00		
	RHS From Dead end		1	132.50	0.90	0.15	17.89		
	2nd Cross								
	LHS from main road		1	100.20	0.90	0.15	13.53		
	RHS From Dead end		1	86.30	0.90	0.15	11.65		
	3rd Cross								
	LHS from main road		1	53.20	0.90	0.15	7.18		
	RHS From Dead end		1	35.10	0.90	0.15	4.74		
	Sai Nagar Phase-1								
	2nd cross								
	LHS from main road		1	124.50	0.90	0.15	16.81		
	RHS From Dead end		1	138.20	0.90	0.15	18.66		
	3rd cross								
	LHS from main road		1	124.60	0.90	0.15	16.82		
	RHS From Dead end		1	129.90	0.90	0.15	17.54		
	5th Cross								
	RHS From main road		1	244.70	0.90	0.15	33.03		
	LHS From end		1	225.10	0.90	0.15	30.39		
	Sai Nagar Phase-3								
	3rd Cross road								
	RHS from main road		1	133.00	0.70	0.15	13.97		
	Cross road		1	164.00	0.90	0.15	22.14		
	Culvert		4	7.00	1.50	0.20	8.40		
	Wall								
	Hillside meadows								
	Main Road								
	LHS From Main Road		2	103.30	0.15	0.65	20.14		
	RHS From Dead end		2	121.90	0.15	0.65	23.77		
	1st Cross Right side								
	LHS from main road		2	31.00	0.15	0.65	6.05		
	RHS From Dead end		2	30.00	0.15	0.65	5.85		
	1st Cross Left side								
	LHS from main road		2	170.40	0.15	0.65	33.23		

				Length	Breadth	Depth	Quantity	Rate	Amount
				m	m	m		in Rs	in Rs
	RHS From Dead end		2	132.50	0.15	0.65	25.84		
	2nd Cross								
	LHS from main road		2	100.20	0.15	0.65	19.54		
	RHS From Dead end		2	86.30	0.15	0.65	16.83		
	3rd Cross								
	LHS from main road		2	53.20	0.15	0.60	9.58		
	RHS From Dead end		2	35.10	0.15	0.61	6.42		
	Sai Nagar Phase-1								
	2nd cross								
	LHS from main road		2	124.50	0.15	0.65	24.28		
	RHS From Dead end		2	138.20	0.15	0.65	26.95		
	3rd cross								
	LHS from main road		2	124.60	0.15	0.60	22.43		
	RHS From Dead end		2	129.90	0.15	0.62	24.16		
	5th Cross								
	RHS From main road		2	244.70	0.15	0.60	44.05		
	LHS From end		2	225.10	0.15	0.60	40.52		
	Sai Nagar Phase-3								
	3rd Cross road								
	RHS from main road		2	133.00	0.15	0.60	23.94		
	Cross road		2	164.00	0.15	0.60	29.52		
	Culvert		4	7.00	0.20	0.70	3.92		
							701.38	7070.20	**4958880.61**
	Approved Rate Rs.=	7070.20							
5	supplying and fixing precast reinforced concrete slab 100mm thick of mix M20 using 20mm and downside graded granite metal using reinforcement 10mm dia steel at 150mm c/cboth ways cost of transportation, hire charges of machinary, machine cutting the vertical face to get plain even surface etc., complete with all leads and lift conveyance charges, labour charges inclusive of cost of materials.								
		Sqm							
	Hillside meadows								
	Main Road								
	LHS From Main Road		1	103.30	0.90	--	92.97		
	RHS From Dead end		1	121.90	0.90	--	109.71		
	1st Cross Right side								
	LHS from main road		1	31.00	0.90	--	27.90		
	RHS From Dead end		1	30.00	0.90	--	27.00		
	1st Cross Left side								
	LHS from main road		1	170.40	0.90	--	153.36		
	RHS From Dead end		1	132.50	0.90	--	119.25		
	2nd Cross								
	LHS from main road		1	100.20	0.90	--	90.18		
	RHS From Dead end		1	86.30	0.90	--	77.67		
	3rd Cross								
	LHS from main road		1	53.20	0.90	--	47.88		
	RHS From Dead end		1	35.10	0.90	--	31.59		
	Sai Nagar Phase-1								
	2nd cross								
	LHS from main road		1	124.50	0.90	--	112.05		

	Description of work	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount
				m	m	m		in Rs	in Rs
	RHS From Dead end								
	3rd cross		1	138.20	0.90	--	124.38		
	LHS from main road								
	RHS From Dead end		1	124.60	0.90	--	112.14		
	5th Cross		1	129.90	0.90	--	116.91		
	RHS From main road								
	LHS From end		1	230.00	0.90	--	207.00		
	Sai Nagar Phase-3		1	208.00	0.90	--	187.20		
	3rd Cross road								
	RHS from main road								
	Cross road		1	133.00	0.60	--	79.80		
			1	164.00	0.90	--	147.60		
	Approved Rate Rs.=	2337.00					**1864.59**	2337.00	**4357546.83**
6	providing and laying precast drain slabs of thick 250mm thick of mix M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finishing surface on both sides etc., completed as per drawing and direction of engineer in charge of work.								
	Culvert	Sqm	4	7.00	1.50	--	42.00		
	Approved Rate Rs.=	5418.00					**42.00**	5418.00	**227556.00**
7	Providing and fixing Pre cast solid concrete kerb stones of size 450 x 150 x 400 mmmade out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete.								
	Hillside meadows	Nos							
	Main Road								
	LHS From Main Road		1	91.90			205.00		
	RHS From Dead end		1	101.90			227.00		
	1st Cross Right side								
	LHS from main road		1	31.00			69.00		
	RHS From Dead end		1	30.00			67.00		
	1st Cross Left side								
	LHS from main road		1	170.40			379.00		
	RHS From Dead end		1	132.50			295.00		
	2nd Cross								
	LHS from main road		1	140.00			312.00		
	RHS From Dead end		1	99.00			220.00		
	3rd Cross								
	LHS from main road		1	60.00			134.00		
	RHS From Dead end		1	35.60			80.00		
	Sai Nagar Phase-1								
	2nd cross								
	LHS from main road		1	124.50			277.00		
	RHS From Dead end		1	138.20			308.00		
	3rd cross								
	LHS from main road		1	128.00			285.00		
	RHS From Dead end		1	134.00			298.00		
	6th Cross								

	Description of work	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount
				m	m	m		in Rs	in Rs
	RHS From main road		1	200.00			445.00		
	LHS From end		1	198.00			440.00		
	Approved Rate Rs.=	477.00					**4041.00**	477.00	**1927557.00**
8	Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications.								
	Hillside meadows	Sqm							
	Main Road								
	LHS From Main Road								
	RHS From Dead end		1	91.90		0.40	36.76		
	1st Cross Right side		1	101.90		0.40	40.76		
	LHS from main road								
	RHS From Dead end		1	31.00		0.40	12.40		
	1st Cross Left side		1	30.00		0.40	12.00		
	LHS from main road								
	RHS From Dead end		1	170.40		0.40	68.16		
	2nd Cross		1	132.50		0.40	53.00		
	LHS from main road								
	RHS From Dead end		1	140.00		0.40	56.00		
	3rd Cross		1	99.00		0.40	39.60		
	LHS from main road								
	RHS From Dead end		1	60.00		0.40	24.00		
	Sai Nagar Phase-1		1	35.60		0.40	14.24		
	2nd cross								
	LHS from main road								
	RHS From Dead end		1	124.50		0.40	49.80		
	3rd cross		1	138.20		0.40	55.28		
	LHS from main road								
	RHS From Dead end		1	128.00		0.40	51.20		
	5th Cross		1	134.00		0.40	53.60		
	RHS From main road								
	LHS From end		1	223.00		0.40	89.20		
			1	222.00		0.40	88.80		
	Approved Rate Rs.=	84.80					**744.80**	84.80	**63159.04**
9	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications.								
	Road	Cum	0	0.00	0.00	–	0.00		
	Approved Rate Rs.=	57.03					**0.00**	57.03	**0.00**

	Description of work	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount
				m	m	m		in Rs	in Rs
10	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method by rotavator at OMC,spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications.								
	Road	Cum							
			0	0.00	0.00	--	0.00		
	Approved Rate Rs.=	1855.00					**0.00**	1855.00	**0.00**
11	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.								
	Road	Cum							
			0	0.00	0.00	--	0.00		
	Approved Rate Rs.=	2001.28					**0.00**	2001.28	**0.00**
12	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.								
	Road	Sqm							
			0	0.00	0.00	--	0.00		
	Approved Rate Rs.=	6.36					**0.00**	6.36	**0.00**
13	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.								
	Road	Sqm							
			0	0.00	0.00	--	0.00		
	Approved Rate Rs.=	33.92					**0.00**	33.92	**0.00**
14	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications.								
	Road	Sqm							
			0	0.00	0.00	--	0.00		
	Approved Rate Rs.=	5.30					**0.00**	5.30	**0.00**

		Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount
				m	m	m		in Rs	in Rs
15	KSRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F E loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by smooth wheeled, vibratory & tandem rollers to achieve the desired density, but excluding cost of primer / tack coat & including lead, lift and cost of all materials, labour, HOM complete as per specifications. 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.4% VG-30 Bitumen								
	Road	Cum	0	0.00	0.00	--	0.00		
							0.00	5962.50	**0.00**
	Approved Rate Rs.=	5962.50							
16	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications								
	Road	Sqm	0	0.00	0.00	--	0.00		
							0.00	12.72	**0.00**
	Approved Rate Rs.=	12.72							
17	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015 using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)								
	Road	Cum	0	0.00	0.00	--	0.00		
							0.00	8699.42	**0.00**
	Approved Rate Rs.=	8699.42							
18	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications.								
	Road	Sqm	0	0.00	0.00	--	0.00		
							0.00	454.74	**0.00**
	Approved Rate Rs.=	454.74							

	Description of work	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount
				m	m	m		in Rs	in Rs
19	Direction and Place Identification Signs with size morethan 0.9 sqm Size Board: Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing.								
	Road	Sqm	0	0.00	0.00	--	0.00		
	Approved Rate Rs.=	7557.80					**0.00**	7557.80	**0.00**
								Sub Total 1 Rs.	**16893295.07**
								Miscellaneous & Rounding off	**1486.08**
								Total Rs.	**16894781.15**

Assistant Engineer
Ward 03
BBMP

Assistant Executive Engineer
Yelahanka Satellite Sub Division
BBMP

Executive Engineer
Yelahanka Division
BBMP

Technical Sanction
Accorded For Rs 1,68,94,781.15
Head of A/C..0.37.49...
CER NO :.....41..... Dt:..03.11.2020

TA1 CE (YNK)